

## **AMENDMENTS TO THE CLAIMS**

Please amend the claims as indicated below. The language being added is underlined ("\_\_\_") and the language being deleted contains either a strikethrough ("—") or is enclosed by double brackets ("[[ ]]").

### **LISTING OF CLAIMS**

1. (Previously Presented) An asynchronous digital subscriber line (ADSL) system comprising:

a central office (CO) operator configured to perform spectrum management, wherein the CO operator is further configured to provide a power spectral density (PSD) mask for spectral shaping of an ADSL overlap spectrum transmission over a plain old telephone system (POTS), the PSD mask represented at least in part by a plurality of break points, the plurality of break points including:  $-97.5 \pm 10\%$  decibel-milliwatts per hertz (dBm/Hz) at  $0 \pm 10\%$  kilohertz (kHz);  $-97.5 \pm 10\%$  dBm/Hz at  $4 \pm 10\%$  kHz;  $-92.5 \pm 10\%$  dBm/Hz at  $4 \pm 10\%$  kHz;  $-36.5 \pm 10\%$  dBm/Hz at  $25 \pm 10\%$  kHz;  $-36.5 \pm 10\%$  dBm/Hz at  $1104 \pm 10\%$  kHz;  $-46.5 \pm 10\%$  dBm/Hz at  $2208 \pm 10\%$  kHz;  $-101.5 \pm 10\%$  dBm/Hz at  $3925 \pm 10\%$  kHz;  $-101.5 \pm 10\%$  dBm/Hz at  $8500 \pm 10\%$  kHz;  $-103.5 \pm 10\%$  dBm/Hz at  $8500 \pm 10\%$  kHz; and  $-103.5 \pm 10\%$  dBm/Hz at  $11040 \pm 10\%$  kHz.

2. (Previously Presented) An asynchronous digital subscriber line (ADSL) system comprising:

a central office (CO) operator configured to perform spectrum management, wherein the CO operator is further configured to provide a power spectral density (PSD) mask for spectral shaping of an ADSL overlap spectrum transmission over a plain old

telephone system (POTS), the PSD mask represented at least in part by a plurality of break points, the plurality of break points including:  $-97.5 \pm 10\%$  decibel-milliwatts per hertz (dBm/Hz) at  $0 \pm 10\%$  kilohertz (kHz);  $-97.5 \pm 10\%$  dBm/Hz at  $4 \pm 10\%$  kHz;  $-72.5 \pm 10\%$  dBm/Hz at  $80 \pm 10\%$  kHz;  $-36.5 \pm 10\%$  dBm/Hz at  $138 \pm 10\%$  kHz;  $-36.5 \pm 10\%$  dBm/Hz at  $1104 \pm 10\%$  kHz;  $-46.5 \pm 10\%$  dBm/Hz at  $2208 \pm 10\%$  kHz;  $-101.5 \pm 10\%$  dBm/Hz at  $3925 \pm 10\%$  kHz;  $-101.5 \pm 10\%$  dBm/Hz at  $8500 \pm 10\%$  kHz;  $-103.5 \pm 10\%$  dBm/Hz at  $8500 \pm 10\%$  kHz; and  $-103.5 \pm 10\%$  dBm/Hz at  $11040 \pm 10\%$  kHz.

3. (Previously Presented) An asynchronous digital subscriber line (ADSL) system comprising:

a central office (CO) operator configured to perform spectrum management, wherein the CO operator is further configured to provide a power spectral density (PSD) mask for spectral shaping of an ADSL overlap spectrum transmission over a plain old telephone system (POTS), the PSD mask represented at least in part by a plurality of break points, the plurality of break points including:  $-97.5 \pm 10\%$  decibel-milliwatts per hertz (dBm/Hz) at  $0 \pm 10\%$  kilohertz (kHz);  $-97.5 \pm 10\%$  dBm/Hz at  $4 \pm 10\%$  kHz;  $-92.5 \pm 10\%$  dBm/Hz at  $4 \pm 10\%$  kHz;  $-56.5 \pm 10\%$  dBm/Hz at  $25 \pm 10\%$  kHz;  $-56.5 \pm 10\%$  dBm/Hz at  $1104 \pm 10\%$  kHz;  $-46.5 \pm 10\%$  dBm/Hz at  $2208 \pm 10\%$  kHz;  $-101.5 \pm 10\%$  dBm/Hz at  $3925 \pm 10\%$  kHz;  $-101.5 \pm 10\%$  dBm/Hz at  $8500 \pm 10\%$  kHz;  $-103.5 \pm 10\%$  dBm/Hz at  $8500 \pm 10\%$  kHz; and  $-103.5 \pm 10\%$  dBm/Hz at  $11040 \pm 10\%$  kHz.

4. (Previously Presented) An asynchronous digital subscriber line (ADSL) system comprising:

a central office (CO) operator configured to perform spectrum management, wherein the CO operator is further configured to provide a power spectral density (PSD) mask for spectral shaping of an ADSL overlap spectrum transmission over a plain old telephone system (POTS), the PSD mask represented at least in part by a plurality of break points, the plurality of break points including:  $-97.5 \pm 10\%$  decibel-milliwatts per hertz (dBm/Hz) at  $0 \pm 10\%$  kilohertz (kHz);  $-97.5 \pm 10\%$  dBm/Hz at  $4 \pm 10\%$  kHz;  $-92.5 \pm 10\%$  dBm/Hz at 80 kHz;  $-56.5 \pm 10\%$  dBm/Hz at  $138 \pm 10\%$  kHz;  $-56.5 \pm 10\%$  dBm/Hz at  $1104 \pm 10\%$  kHz;  $-46.5 \pm 10\%$  dBm/Hz at  $2208 \pm 10\%$  kHz;  $-101.5 \pm 10\%$  dBm/Hz at  $3925 \pm 10\%$  kHz;  $-101.5 \pm 10\%$  dBm/Hz at  $8500 \pm 10\%$  kHz;  $-103.5 \pm 10\%$  dBm/Hz at  $8500 \pm 10\%$  kHz; and  $-103.5 \pm 10\%$  dBm/Hz at  $11040 \pm 10\%$  kHz.

5. (Previously Presented) An asynchronous digital subscriber line (ADSL) system comprising:

a central office (CO) operator configured to perform spectrum management, wherein the CO operator is further configured to provide a power spectral density (PSD) mask for spectral shaping of an ADSL overlap spectrum over an integrated digital services network (ISDN), the PSD mask represented at least in part by a plurality of break points, the plurality of break points including:  $-90 \pm 10\%$  decibel-milliwatts per hertz (dBm/Hz) at  $0 \pm 10\%$  kilohertz (kHz);  $-90 \pm 10\%$  dBm/Hz at  $93.1 \pm 10\%$  kHz;  $-62 \pm 10\%$  dBm/Hz at  $209 \pm 10\%$  kHz;  $-36.5 \pm 10\%$  dBm/Hz at  $255 \pm 10\%$  kHz;  $-36.5 \pm 10\%$  dBm/Hz at  $1104 \pm 10\%$  kHz;  $-46.5 \pm 10\%$  dBm/Hz at  $2208 \pm 10\%$  kHz;  $-101.5 \pm 10\%$

dBm/Hz at 3925  $\pm 10\%$  kHz; -101.5  $\pm 10\%$  dBm/Hz at 8500  $\pm 10\%$  kHz; -103.5  $\pm 10\%$  dBm/Hz at 8500  $\pm 10\%$  kHz; and -103.5  $\pm 10\%$  dBm/Hz at 11040  $\pm 10\%$  kHz.

6. (Previously Presented) An asynchronous digital subscriber line (ADSL) system comprising:

a central office (CO) operator configured to perform spectrum management, wherein the CO operator is further configured to provide a power spectral density (PSD) mask for spectral shaping of an ADSL overlap spectrum over an integrated digital services network (ISDN), the PSD mask represented at least in part by a plurality of break points, the plurality of break points including: -90  $\pm 10\%$  decibel-milliwatts per hertz (dBm/Hz) at 0  $\pm 10\%$  kilohertz (kHz); -90  $\pm 10\%$  dBm/Hz at 93.1  $\pm 10\%$  kHz; -62  $\pm 10\%$  dBm/Hz at 209  $\pm 10\%$  kHz; -56.5  $\pm 10\%$  dBm/Hz at 255  $\pm 10\%$  kHz; -56.5  $\pm 10\%$  dBm/Hz at 1104  $\pm 10\%$  kHz; -46.5  $\pm 10\%$  dBm/Hz at 2208  $\pm 10\%$  kHz; -101.5  $\pm 10\%$  dBm/Hz at 3925  $\pm 10\%$  kHz; -101.5  $\pm 10\%$  dBm/Hz at 8500  $\pm 10\%$  kHz; -103.5  $\pm 10\%$  dBm/Hz at 8500  $\pm 10\%$  kHz; and -103.5  $\pm 10\%$  dBm/Hz at 11040  $\pm 10\%$  kHz.

7. (Previously Presented) An asynchronous digital subscriber line (ADSL) system comprising:

a central office (CO) operator configured to perform spectrum management, wherein the CO operator is further configured to provide a power spectral density (PSD) mask for spectral shaping of an ADSL overlap spectrum transmission over a plain old telephone system (POTS), the PSD mask represented at least in part by a plurality of break points, the plurality of break points including: -97.5  $\pm 5\%$

decibel-milliwatts per hertz (dBm/Hz) at  $0 \pm 5\%$  kilohertz (kHz);  $-97.5 \pm 5\%$  dBm/Hz at  $4 \pm 5\%$  kHz;  $-92.5 \pm 5\%$  dBm/Hz at  $4 \pm 5\%$  kHz;  $-36.5 \pm 5\%$  dBm/Hz at  $25 \pm 5\%$  kHz;  $-36.5 \pm 5\%$  dBm/Hz at  $1104 \pm 5\%$  kHz;  $-46.5 \pm 5\%$  dBm/Hz at  $2208 \pm 5\%$  kHz;  $-101.5 \pm 5\%$  dBm/Hz at  $3925 \pm 5\%$  kHz;  $-101.5 \pm 5\%$  dBm/Hz at  $8500 \pm 5\%$  kHz;  $-103.5 \pm 5\%$  dBm/Hz at  $8500 \pm 5\%$  kHz; and  $-103.5 \pm 5\%$  dBm/Hz at  $11040 \pm 5\%$  kHz.

8. (Previously Presented) An asynchronous digital subscriber line (ADSL) system comprising:

a central office (CO) operator configured to perform spectrum management, wherein the CO operator is further configured to provide a power spectral density (PSD) mask for spectral shaping of an ADSL non-overlap spectrum over a plain old telephone system (POTS), the PSD mask represented at least in part by a plurality of break points, the plurality of break points including:  $-97.5 \pm 5\%$  decibel-milliwatts per hertz (dBm/Hz) at  $0 \pm 5\%$  kilohertz (kHz);  $-97.5 \pm 5\%$  dBm/Hz at  $4 \pm 5\%$  kHz;  $-72.5 \pm 5\%$  dBm/Hz at  $80 \pm 5\%$  kHz;  $-36.5 \pm 5\%$  dBm/Hz at  $138 \pm 5\%$  kHz;  $-36.5 \pm 5\%$  dBm/Hz at  $1104 \pm 5\%$  kHz;  $-46.5 \pm 5\%$  dBm/Hz at  $2208 \pm 5\%$  kHz;  $-101.5 \pm 5\%$  dBm/Hz at  $3925 \pm 5\%$  kHz;  $-101.5 \pm 5\%$  dBm/Hz at  $8500 \pm 5\%$  kHz;  $-103.5 \pm 5\%$  dBm/Hz at  $8500 \pm 5\%$  kHz; and  $-103.5 \pm 5\%$  dBm/Hz at  $11040 \pm 5\%$  kHz.

9. (Previously Presented) An asynchronous digital subscriber line (ADSL) system comprising:

a central office (CO) operator configured to perform spectrum management, wherein the CO operator is further configured to provide a power spectral density

(PSD) mask for spectral shaping of an ADSL overlap spectrum over a plain old telephone system (POTS), the PSD mask represented at least in part by a plurality of break points, the plurality of break points including:  $-97.5 \pm 5\%$  decibel-milliwatts per hertz (dBm/Hz) at  $0 \pm 5\%$  kilohertz (kHz);  $-97.5 \pm 5\%$  dBm/Hz at  $4 \pm 5\%$  kHz;  $-92.5 \pm 5\%$  dBm/Hz at  $4 \pm 5\%$  kHz;  $-56.5 \pm 5\%$  dBm/Hz at  $25 \pm 5\%$  kHz;  $-56.5 \pm 5\%$  dBm/Hz at  $1104 \pm 5\%$  kHz;  $-46.5 \pm 5\%$  dBm/Hz at  $2208 \pm 5\%$  kHz;  $-101.5 \pm 5\%$  dBm/Hz at  $3925 \pm 5\%$  kHz;  $-101.5 \pm 5\%$  dBm/Hz at  $8500 \pm 5\%$  kHz;  $-103.5 \pm 5\%$  dBm/Hz at  $8500 \pm 5\%$  kHz; and  $-103.5 \pm 5\%$  dBm/Hz at  $11040 \pm 5\%$  kHz.

10. (Previously Presented) An asynchronous digital subscriber line (ADSL) system comprising:

a central office (CO) operator configured to perform spectrum management, wherein the CO operator is further configured to provide a power spectral density (PSD) mask for spectral shaping of an ADSL non-overlap spectrum over a plain old telephone system (POTS), the PSD mask represented at least in part by a plurality of break points, the plurality of break points including:  $-97.5 \pm 5\%$  decibel-milliwatts per hertz (dBm/Hz) at  $0 \pm 5\%$  kilohertz (kHz);  $-97.5 \pm 5\%$  dBm/Hz at  $4 \pm 5\%$  kHz;  $-92.5 \pm 5\%$  dBm/Hz at  $80 \pm 5\%$  kHz;  $-56.5 \pm 5\%$  dBm/Hz at  $138 \pm 5\%$  kHz;  $-56.5 \pm 5\%$  dBm/Hz at  $1104 \pm 5\%$  kHz;  $-46.5 \pm 5\%$  dBm/Hz at  $2208 \pm 5\%$  kHz;  $-101.5 \pm 5\%$  dBm/Hz at  $3925 \pm 5\%$  kHz;  $-101.5 \pm 5\%$  dBm/Hz at  $8500 \pm 5\%$  kHz;  $-103.5 \pm 5\%$  dBm/Hz at  $8500 \pm 5\%$  kHz; and  $-103.5 \pm 5\%$  dBm/Hz at  $11040 \pm 5\%$  kHz.

11. (Previously Presented) An asynchronous digital subscriber line (ADSL) system comprising:

a central office (CO) operator configured to perform spectrum management, wherein the CO operator is further configured to provide a power spectral density (PSD) mask for spectral shaping of an ADSL overlap spectrum over an integrated digital services network (ISDN), the PSD mask represented at least in part by a plurality of break points, the plurality of break points including:  $-90 \pm 5\%$  decibel-milliwatts per hertz (dBm/Hz) at  $0 \pm 5\%$  kilohertz (kHz);  $-90 \pm 5\%$  dBm/Hz at  $93.1 \pm 5\%$  kHz;  $-62 \pm 5\%$  dBm/Hz at  $209 \pm 5\%$  kHz;  $-36.5 \pm 5\%$  dBm/Hz at  $255 \pm 5\%$  kHz;  $-36.5 \pm 5\%$  dBm/Hz at  $1104 \pm 5\%$  kHz;  $-46.5 \pm 5\%$  dBm/Hz at  $2208 \pm 5\%$  kHz;  $-101.5 \pm 5\%$  dBm/Hz at  $3925 \pm 5\%$  kHz;  $-101.5 \pm 5\%$  dBm/Hz at  $8500 \pm 5\%$  kHz;  $-103.5 \pm 5\%$  dBm/Hz at  $8500 \pm 5\%$  kHz; and  $-103.5 \pm 5\%$  dBm/Hz at  $11040 \pm 5\%$  kHz.

12. (Previously Presented) An asynchronous digital subscriber line (ADSL) system comprising:

a central office (CO) operator configured to perform spectrum management, wherein the CO operator is further configured to provide a power spectral density (PSD) mask for spectral shaping of an ADSL overlap spectrum over an integrated digital services network (ISDN), the PSD mask represented at least in part by a plurality of break points, the plurality of break points including:  $-90 \pm 5\%$  decibel-milliwatts per hertz (dBm/Hz) at  $0 \pm 5\%$  kilohertz (kHz);  $-90 \pm 5\%$  dBm/Hz at  $93.1 \pm 5\%$  kHz;  $-62 \pm 5\%$  dBm/Hz at  $209 \pm 5\%$  kHz;  $-56.5 \pm 5\%$  dBm/Hz at  $255 \pm 5\%$  kHz;  $-56.5 \pm 5\%$  dBm/Hz at  $1104 \pm 5\%$  kHz;  $-46.5 \pm 5\%$  dBm/Hz at  $2208 \pm 5\%$  kHz;  $-101.5 \pm 5\%$  dBm/Hz at  $3925 \pm$